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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,398	01/28/2004	Kenji Mikami	00862.023426	2551
5514 7590 01/31/2008 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				
			EXAMINER KAU, STEVEN Y	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 01/31/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,398	MIKAMI, KENJI	
	Examiner	Art Unit	
	Steven Kau	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/28/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on January 28, 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner with the following reason.

Abstract is provided for all foreign patent documents submitted on January 24, 2004 except for Japanese Patent Document N0. 2003-076097. However, applicant's remark (Paragraph 3) dated January 28, 2004 for IDS, discloses the basic concept of the document. Therefore, Paragraph 3 of Remark dated January 24, 2003 is under consideration by the examiner for Japanese Patent Document N0. 2003-076097.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 9-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claims 9-12 direct to a computer product, which are merely claiming for computer programming steps. With respect to Claim 9, recites, "A computer program product on which a program has been recorded, said program comprising: code of a discrimination step of discriminating types of objects contained in input data; and code of a processing step of applying reduction processing, which suppresses amount of colorant, to a thin line in graphics if result of discrimination at said discrimination step is that an object is a graphic; wherein whether reduction processing is to be executed or not can be selected by a user". The computer product claims for (a) discriminating types of objects, (b) applying (colorant) reduction processing to a thin line in graphics, which the process can be selected by a user. The recited computer program product is with functional descriptive material. While functional descriptive material may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium. A "computer programming steps" per se does not fall within any of the four statutory classes of 35 U.S.C. §101. Furthermore, a "computer programming steps" is not a "machine", "composition of matter" or a "manufacture" because these statutory classes "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." (1 D. Chisum, Patents § 1.02 (1994)). Machines, manufactures and compositions of matter are embodied by physical structures or material, whereas a "computer programming steps" has neither a physical structure nor a tangible material. That is, a "computer programming steps" is not a "machine" because it has no physical structure, and does not perform any useful, concrete and tangible result. Likewise, a "computer programming steps" is not a

"composition of matter" because it is not "matter", but rather a form of conceptual idea. Finally, a "computer programming steps" is not a "manufacture" because all traditional definitions of a "manufacture" have required some form of physical structure, which a claimed "computer program steps" does not have.

A "manufacture" is defined as "the production of articles for use from raw materials or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931)).

Therefore, a computer program product merely claims for computer program steps is considered non-statutory because it is a form of conceptual idea, in the absence of any physical structure or tangible material, that does not fall within any of the four statutory classes of 35 U.S.C. §101.

Claims 10-12 are rejected under 35 U.S.C. §101 for the same reason discussed in the rejection of Claim 9.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 4, 5, 8, 9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugimoto (US 2003/0043392).

Regarding claim 1.

Sugimoto discloses an image forming apparatus (Fig. 1, Para 0046) comprising: a discrimination unit (Image Distinguishing Module of Fig. 2) for discriminating types of objects (images) contained in input data (Paras 0059 & 0061); and a processing unit (Toner Level Selection Module of Fig. 2) for applying reduction processing (Paras 0068 & 0069 teaches a restraining or reduction toner process, e.g. decrease the toner save level), which suppresses amount of colorant (Para 0066 teaches adjusting toner save level for printing image data), to a thin line in a graphics if result of discrimination by said discrimination unit is that an object is a graphic (Paras 0068 & 69 teach controlling resolution level to a thin line); wherein whether reduction processing is to be executed or not can be selected by a user (Para 0069 teaches the reduction process is specified by user).

Regarding claim 4.

Sugimoto discloses wherein said discrimination unit discriminates the type of object based upon an instruction contained in image data described in page description language (Para 0061).

Regarding claims 5 and 9.

Claims 5 and 9 recite identical features as claim 1, except claim 5 is a method claim and 9 is a computer program product claim. Thus, arguments similar to that presented above for claim 1 are also equally applicable to claims 5 and 9.

Regarding claims 8 and 12.

Claims 8 and 12 recite identical features as claim 4, except claim 8 is a method claim and 12 is a computer program product claim. Thus, arguments similar to that presented above for claim 4 are also equally applicable to claims 8 and 12.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 3, 6, 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto (US 2003/0043392) in view of Hanyu (US 2003/0047099).

Regarding claim 2.

Sugimoto discloses an image forming apparatus (Fig. 1, Para 0046) comprising: a discrimination unit (Image Distinguishing Module of Fig. 2) for discriminating types of objects (images) contained in input data (Paras 0059 & 0061); and a processing unit (e.g. Toner Level Selection Module of Fig. 2) for applying reduction processing (Paras 0068 & 0069 teaches a restraining or reduction toner process, e.g. decrease the toner

save level), which suppresses amount of colorant (Para 0066 teaches adjusting toner save level for printing image data) that is necessary to form an object into an image to an amount conforming to the type of object (Paras 0067, 0068 & 0069 teach controlling resolution level to characters, lines or dots), in accordance with result of discrimination by said discrimination unit (Para 0067-0069);

Sugimoto differs from claim 2, in that he does not teach wherein amount of the colorant can be specified by a user object by object.

Hanyu teaches wherein amount of the colorant (e.g. toner amount) can be specified by a user object by object (document type) (Figs. 9A-B, Paras 0064-0065, and 0069-0074).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Sugimoto to include that amount of the colorant can be specified by a user object by object taught by Hanyu to achieves discriminatory toner saving for different image parts without reducing the processing speed of color printing (Para 0009).

Regarding claim 3.

Sugimoto discloses wherein said processing unit doesn't execute application of the reduction processing to an object of a certain type (Figs 6 & 7, Para 0097).

Regarding claims 5 and 9.

Claims 6 and 10 recite identical features as claim 2, except claim 6 is a method claim and 10 is a computer program product claim. Thus, arguments similar to that presented above for claim 2 are also equally applicable to claims 6 and 10.

Regarding claims 7 and 11.


Claims 7 and 11 recite identical features as claim 3, except claim 7 is a method claim and 11 is a computer program product claim. Thus, arguments similar to that presented above for claim 3 are also equally applicable to claims 7 and 11.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


S. Kau
Patent Examiner
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January 18, 2008


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